

Conservation Security Program

Soil Management Enhancements



Natural Resources Conservation Service
United States Department of Agriculture

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Soil Conditioning Index – Soil Management

Definition

The Soil Conditioning Index (SCI) is a tool that can predict the consequences of cropping systems and tillage practices on the trend of soil organic matter. It provides a means to evaluate and design conservation systems that maintain or improve soil condition. Organic matter is a primary indicator of soil quality and an important factor in carbon sequestration and global climate change.

Purpose

SCI gives an overall rating taking into consideration biomass production, field operations, and erosion rates. If the rating is negative, the level of soil organic matter is predicted to decline under the production system. If the rating is positive, the level is predicted to increase under the system. Values near zero suggest the organic matter will be maintained near the current level. An upward trend in SCI will be an outcome of land management decisions based on improving the soil resource.

The purpose of this enhancement is to increase the SCI through improved management of the cropping system so that it will build organic matter, reduce tillage and control erosion.

Where Used

This enhancement may be used on all cropland, hayland and grazing land fields.

Documentation Required

RUSLE2 is the official NRCS tool that is used to calculate the SCI. See the tillage operations worksheet for documentation requirements.

Payment Rate

The payment rate is an annual payment per acre for a weighted average SCI between given SCI ranges. Pastureland, hayland, orchards, vineyards, cropped woodland, and marshes may earn an SCI enhancement payment based on the computed SCI of the management system, capped at an SCI of 1.0.

I certify that, to the best of my knowledge, the above information is correct and that, if requested, I will provide additional documentation to support the above information.

Signature: _____ **Date:** _____